MULTIMEDIA UNIVERSITY®

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 1, 2018/2019

MVR1023 – SIMULATION MODELLING

(All sections / Groups)

22 OCTOBER 2018
2.30 PM – 4.30 PM
(2 Hours)

INSTRUCTION TO THE STUDENT

1. This Question paper consists of 5 pages including cover page with 10 questions in Section A and 4 questions in Section B. Total marks is 40.

2. Answer **ALL 10 questions in Section A.** Each question carries 1 mark.

3. Answer ONLY **3 out of 4 questions in Section B** and the distribution of the marks is as stated.

4. Please write all your answers in the answer booklet provided

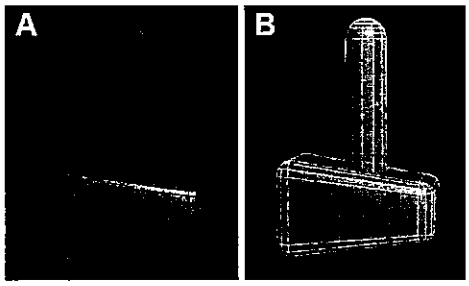
SECTION A | Answer ALL
Total marks are 10

1. To know how many polygons of your 3D model in the 3Ds Max, the shortcut key in the keyboard is by pressing:
   A. Space Bar
   B. Alt+X
   C. 7
   D. F4

2. What is an addition in case of a scale drawing?
   A. Detail data that can be used as reference of a project
   B. A scale drawing that is smaller than the actual object
   C. A measurement method of comparing one object to another object
   D. A scale drawing that is larger than the actual object

3. How do you interpret the scale of 1 cm: 1 m
   A. 2 mm on the drawing is equal to 1 m on the actual object
   B. 1 cm on the drawing is equal to 100 cm on the actual object
   C. 0.1 cm on the actual object is equal to 1 m on the drawing
   D. 1 kilometer on the drawing is equal to 0.0001 cm on the actual object

4. In animation, when object A linked to object B, it means A is the child object and B is the parent object. Which one of these parent-child relationships in 3D Max is not correct?
   A. Deleting the Parent object, will reset the pivot of Child Object
   B. When you move the parent, the child will follow
   C. Use select and link and unlink selection on the toolbar to make and remove links between objects.
   D. The child can move individually without effecting the parent

5. 

The condition A becomes condition B. These happens in 3ds Max.

Continued...

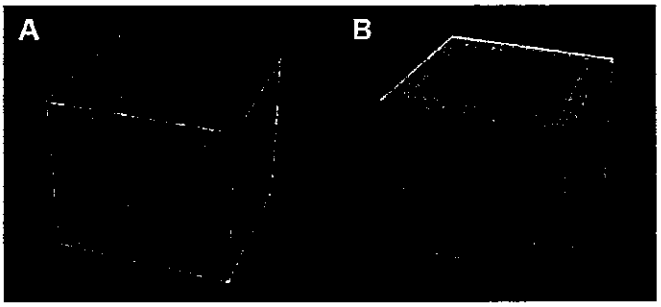
What is the possibility that makes these two objects becomes one object although their elements are still separated?

A. Compound Object> Boolean > Subtraction object A towards B
B. Choose the upper object> Modifier> Bend
C. Choose the lower object > Element > Attach > Click upper object
D. Choose the lower object > Snaps Toggle> Click the upper Object

6. In Unity 3D, to create an area that your character/ an object cannot go through you need to create:
   A. A Terrain
   B. A Legacy
   C. A Skybox
   D. A Collider

7. In creating animated character for appealing pose, we avoid to create "twins", and the example of "twins" is:
   A. Both arms and both legs are in same position doing the same thing.
   B. Two characters which have the same face and body
   C. Lagging in time and space
   D. Extruded objects in certain time without a reason.

8. What are UVs?
   A. A texture that will be assigned to the 3D object in 3D software
   B. Coordinates to place the texture in 3D space by taking each point of the model (vertex) and assign it to a point on the map.
   C. Various types of projections to map the texture in the 3D object
   D. A 3D space in 3D model to map the texture

9. 

What possibility has happened with the Box A which has a hole on the top (Picture A) that becomes as the box in Picture B?

A. It's added with Modifier > Shell
B. Adapts the texture resolution based on the distance of the virtual camera

Continued..

C. Modifier > Mesh Smooth> Unwrap UVW
D. The Box is copied and pasted in the center of the box, so there will be two boxes

10. To see the 3ds Max model transparently, the shortcut key in the keyboard is by pressing:
    A. Ctrl+X
    B. Shift+X
    C. Ctrl+Backspace
    D. Alt+F4

SECTION B

Answer only THREE (3) questions out of four. Each question carries TEN (10) marks.

Question 1

a. Describe the differences between a 3rd person adventure game character and platform game character [4 marks]
b. Picture a little girl in a game character with short curly hair, and has a ball at her hand. She just about to throw the ball to a friend. Briefly describe and sketch the situation with the principle of animations of "anticipation" for his character to throw the ball animation. [6 marks]

Question 2

a. Define what normal map is. Explain how normal map works. (You may make a sketch to explain) [4 marks]
b. Explain step by step the process to create the bump map effect on of the face of wooden box in 3ds Max. You can sketch the answer to support your explanation. [6 marks]

Continued..

Question 3

a. What is negative space and briefly explain the function of negative space. [4 marks]

b. What are the questions you can ask yourself as a game artist when you want to create a game asset, for example a house, to enhance the visual presentation and give characteristic of the assets? Support each answer with example. [6 marks]

Question 4

In gaming or real-time application, polygon count is very important to ensure the quality of the application. Discuss and give example any 3 methods cleaning up geometry in game modeling

a. Why low poly is important in game development? Discuss three reasons and give examples. [6 marks]

b. List down any four methods cleaning up geometry in game modelling. [4 marks]

End of Paper